

TECHNICAL STATEMENT  
IN SUPPORT OF LICENSE RENEWAL  
DTV TRANSLATOR STATION WISH-LD  
INDIANAPOLIS, INDIANA  
FACILITY ID 39269  
CH 17 15 KW-DA 190.5 m AGL

This technical statement was prepared in support of the license renewal application for digital television (DTV) translator station WISH-LD at Indianapolis, Indiana. Specifically, the purpose of this technical statement is to provide information demonstrating that the operation of WISH-LD complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

DTV translator station WISH-LD is licensed (BLCDT-20110207ACU) to operate on channel 17 (488-494 MHz) with a directional antenna (DA) maximum effective radiated power (ERP) of 15 kilowatts (kW), an antenna radiation center height above mean sea level (RCMSL) of 439.3 meters, and an antenna radiation center height above ground level (RCAGL) of 190.5 meters. An Andrew model AL12-17-PL, horizontally polarized, directional antenna is employed.

The licensed WISH-LD facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level at the base of the tower in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." This Bulletin provide assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields adopted by the Commission in 1996.<sup>1</sup>

The calculated power density at the base of the tower was calculated using the appropriate equation of the Bulletin. Using a "worst-case" vertical plane relative field value of 1.0, a total ERP of 15 kW and an antenna center of radiation height above ground level of 190.5 meters, the calculated power density at two meters above ground level at the base of the tower is 0.014 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 0.9 percent of the Commission's recommended limit applicable to controlled exposure areas ( $1.637 \text{ mW}/\text{cm}^2$  for TV channel 17) and 4.3 percent of the Commission's recommended

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<sup>1</sup> See *Report and Order* in ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 11 FCC Rcd 15123 (1997). See also *First Memorandum Opinion and Order*, ET Docket 93-62, FCC 96-487, adopted December 23, 1996, 11 FCC Rcd 17512 (1997), and *Second Memorandum Opinion and Order and Notice of Proposed Rulemaking*, ET Docket 93-62, FCC 97-303, adopted August 25, 1997.

limit applicable to general population/uncontrolled exposure areas (0.327 mW/cm<sup>2</sup> for TV channel 17).

As the power density for WISH-LD's licensed operation does not exceed the 5% threshold for either controlled or general population/uncontrolled exposure areas, it is believed that they are in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the transmitting site is and will be restricted and appropriately marked with warning signs. Furthermore, a protocol will be in effect to control access to the site. In the event that workers or other authorized personnel enter the restricted area appropriate measures shall be taken to limit RF energy exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

If there are questions concerning the technical portion of this application, please contact the office of the undersigned.



W. Jeffrey Reynolds

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
(941) 329-6000  
[JEFF@DLR.COM](mailto:JEFF@DLR.COM)

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